SECTION 202
REMOVAL OF STRUCTURES AND OBSTRUCTIONS

DESCRIPTION

202.01.01 GENERAL
A. This work shall consist of the removal, wholly or in part, and satisfactory disposal of all buildings, fences, guardrails, structures, old pavement, abandoned pipelines, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the contract. It shall also include the salvaging of designated materials and backfilling the resulting trenches, holes, and pits.

MATERIALS

202.02.01 BLANK

CONSTRUCTION

202.03.01 GENERAL
A. The Contractor shall raze, remove, and dispose of all buildings and foundations, structures, guardrail, culvert markers and guide posts, fences, and other obstructions, any portions of which are on the right-of-way, except utilities and those for which other provisions have been made for removal. All designated salvable material shall be removed, without unnecessary damage, in sections or pieces which may be readily transported, and shall be stored by the Contractor at specified places within the project limits. Unusable material shall be disposed of in accordance with Subsection 107.14, "Disposal of Material Outside Project Right-of-Way." Basements or cavities left by structure removal shall be filled to the level of the surrounding ground and, if within the prism of construction, shall be compacted in accordance with Subsection 203.03.18, "Compaction, Dirt Embankment" or Subsection 203.03.19, "Compaction, Rock Embankment."

202.03.02 REMOVAL
A. Bridges, culverts, and other drainage structures in use by traffic shall not be removed until satisfactory arrangements have been made to accommodate traffic.

B. All operations necessary for the removal of any existing structure which might endanger the new construction shall be completed prior to the construction of the new work. No equipment or devices shall be used which might damage structures, facilities, or properties which are to be preserved and retained.

C. Unless otherwise directed, the substructures of existing structures shall be removed down to the natural stream bottom and those parts outside of the stream shall be removed down one foot below natural ground surface. Where such portions of existing structures lie wholly or in part within the limits for a new structure, they shall be removed as necessary to accommodate the construction of the proposed structure.

D. Operations necessary for the removal of an existing structure or obstruction, which may damage new construction, shall be completed prior to placing the new work.
E. Bituminous pavement shall be removed to clean straight lines. Saw cutting of edges to be joined is required. Where only the surface of existing bituminous pavement is to be removed by heater-planing, or by other approved methods, a minimum laying depth of 1 inch of new pavement material shall be provided at the joint line. Where bituminous pavement adjoins a trench, the edges adjacent to the trench shall be saw cut to neat straight lines before resurfacing.

F. Concrete pavement shall be removed to neatly sawed edges. Saw cuts shall be made to a minimum depth of 1-1/2 inches. If a saw cut in concrete pavement falls within 3 feet of a construction joint, cold joint, expansion joint, or edge, the concrete shall be removed to the joint or edge. The edges of existing concrete pavement adjacent to trenches, where damaged subsequent to saw cutting of the pavement, shall again be saw cut to neat straight lines for the purpose of removing the damaged pavement areas. Such saw cuts shall be either parallel to the original saw cuts or shall be cut on an angle which departs from the original saw cut not more than 1 inch in each 6 inches.

G. Concrete curb, walk, gutters, cross gutters, driveways, and alley intersections shall be removed to nearest score line or joint.

H. In removing manholes, catch basins, and inlets, any live sewers connected to item shall be rebuilt and properly reconnected and a satisfactory bypass service shall be maintained during such construction operations. When abandoning manholes, catch basins, and inlets, they shall be thoroughly cleaned and existing pipe connections shall be plugged with concrete of the class and grade specified for structures. The portions of the structures shall then be removed to the required elevations and any necessary backfill shall be placed and compacted to specifications.

202.03.03 EXTENSIONS

A. Where existing culverts and bridges are to be extended or otherwise incorporated in the new work, only such part or parts of the existing structure shall be removed as is necessary to provide a proper connection to the new work. The connecting edges shall be cut, shaped, and trimmed to the required lines and grades without weakening or damaging the part of the structure to be retained. Reinforcing bars which are to be left in place, so as to project into the new work as dowels or ties, shall not be injured during removal of concrete.

202.03.04 CLOSING CULVERTS

A. Existing culverts within construction limits, the top of which are 5 feet or more below finished roadway grade, shall be abandoned and closed unless otherwise noted on the plans. The headwalls of such culverts, or any part of the structure that is within 3 feet of the finished grade line shall be removed. The ends of the culvert shall be completely filled with satisfactory soil for a distance of at least 2 feet, plus the height of the opening of the structure.

202.03.05 SALVAGE

A. When specified, gravel, roadmix, or plantmix surface suitable for reuse shall be removed to the depth required and surfacing so removed shall be carefully salvaged and placed in compact stockpiles at locations approved by the Engineer. Care shall be exercised to prevent contamination of stockpiled material. Any remaining unsuitable material shall be scarified and incorporated in embankment as set forth in Section 203, "Excavation and Embankment."
B. Fences and gates designated for reuse shall be removed in such a manner that all material can be salvaged. Wire shall be carefully removed from the posts and rolled in rolls of a size that can be conveniently handled. Posts shall be removed by methods that will keep breakage to a minimum.

C. Guardrail, culvert markers, and guide posts designated for reuse shall be removed in such a manner that all material can be salvaged. Bolts, supports, and other hardware shall be removed from all rails, plates, and posts and all parts shall be sorted and stored at the locations specified. Rail, plates, and posts shall be properly stacked and miscellaneous hardware shall be stacked or boxed and reasonable care exercised in handling, storage, and preservation of materials as will ensure the maximum salvage value for the entire operation. Attention is directed to Section 618, "Guardrail," and Section 619, "Object Markers and Guide Posts."

D. When specified for salvage, structural steel removed from old structures shall be stored in a neat and presentable manner on blocking and at locations suitable for loading. Structures or portions thereof which are specified for re-erection shall be stored in separate piles.

E. When re-lay culvert pipe is required, the Contractor shall remove the pipe in such a manner as not to damage the material in any way. If no particular pipe is noted for re-lay, the Contractor shall salvage and clean sufficient amount of the best available pipe to satisfy the re-lay pipe item.

F. Timber or piling from all structures designated to be salvaged shall have all nails and bolts removed therefrom and shall be stored in neat piles at locations suitable for loading.

**202.03.06 DISPOSING OF MATERIALS**

A. Unless otherwise provided, excavated material shall be used in backfilling excavations made in removing the structure, in constructing embankment, or otherwise disposed of in a manner satisfactory to the Engineer.

B. When the placement of riprap and similar structures is included in the proposal, suitable broken concrete or masonry removed from old structures may be used in such construction. Any concrete or masonry which cannot be placed in backfills or embankments or used as riprap, shall be disposed of in accordance with Subsection 107.14, "Disposal of Material Outside Project Right-of-Way." The material shall not be placed where it will obstruct any drainage course.

C. When concrete or masonry is placed in embankments, it shall be placed in accordance with Subsection 203.03.16, "Embankment Materials."

**METHOD OF MEASUREMENT**

**202.04.01 MEASUREMENT**

A. When the contract stipulates that payment will be made for removal of structures and obstructions on a lump sum basis, the pay item will include removal of all structures and obstructions encountered within the right-of-way in accordance with the provisions of this section. Where the proposal stipulates that payment will be made for the removal of specific items on a unit basis, measurement will be made by the unit stipulated in the contract.

B. The length of pipe removed will be measured in linear feet by measuring in place prior to removal.
C. All measurements will be made in accordance with Subsection 109.01, "Measurement of Quantities."

BASIS OF PAYMENT

202.05.01 PAYMENT

A. The accepted quantities of removal of structures and obstructions will be paid for at the contract lump sum price bid, which shall be full compensation for removing and disposing of the obstructions in accordance with the contract, including excavation and subsequent backfill.

B. Specific obstruction items stipulated for removal and disposal under unit price pay items will be paid for at the contract unit price bid per unit specified in the proposal, which shall be full compensation for removal and disposal of such items, excavation, and subsequent backfill incidental to their removal. The price shall also include salvage of materials removed, their custody, preservation, storage on the right-of-way, and disposal as provided herein.

C. When the proposal does not include any pay item or an appropriate pay item for removal of any structure or obstruction as set forth in this section, such work shall be performed and payment therefor will be considered as subsidiary to other items of work. No additional compensation will be allowed.

D. All payments will be made in accordance with Subsection 109.02, "Scope of Payment."

E. Payment will be made under:

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